

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION

Vervain, LLC

Plaintiff,

v.

Micron Technology, Inc.;
Micron Semiconductor Products, Inc.; and
Micron Technology Texas, LLC

Defendants.

Civil Action No. 6:21-cv-487-ADA

DISCOVERY DISPUTE ORDER

The Court hereby rules on the following discovery disputes that the parties raised by email on April 1, 2022 and which the Court heard arguments on on April 13, 2022.

FIRST ISSUE

Plaintiff's Position:

Defendants Micron Technology, Inc., Micron Semiconductor Products, Inc., and Micron Technology Texas, LLC ("Micron") should be compelled to produce the requested source code printouts of relevant functionalities to Plaintiff Vervain, LLC ("Vervain").

Vervain is entitled to source code printouts of relevant functionalities in order to prepare its expert reports and other potential court filings. Vervain is not attempting to print merely for the purpose of review elsewhere. Vervain completed four full days of in-person review, with two reviewers present each day. Vervain sorted through Micron's 160,000-file production, requesting printouts from ten different products. The amount of code Vervain has requested for printing (1,533 pages across ten products) is a tiny fraction of what Micron produced.

An average of about 150 pages per product is far from excessive, particularly considering each page includes only about 60 lines of code. Micron has produced separate source code productions for seventeen different products, many of which use entirely different codebases. Micron has not agreed to representative products at this point, so Vervain may need to show separate printouts for each product in order to prove its case.

Vervain has complied with the page limit in the Protective Order, which states that continuous blocks of more than 20 pages of source code would be presumptively excessive. Dkt. 28 at 9. Vervain asserts four patents with varying claim scope. The claims—and Vervain’s contentions—relate to different functions, such as folding, block reclamation, garbage collection, wear leveling, COPYBACK, flash data retention, and SLC caching. These processes typically traverse multiple source code files, with individual files in many cases spanning thousands of lines, and with numerous .c and .h files for many of the accused modules.

Deficiencies in Micron’s production also necessitate these printouts. Micron has produced hardware documentation only for certain controllers. Vervain has requested source code to show register maps for Micron’s current controllers because it is the only documentation Vervain presently has for these controllers’ functionality. Vervain requested printing of non-source-code Microsoft Office documents on the review computer that were not produced as part of Micron’s regular production. Many relevant functions have additional source files implementing state machines. Micron has not provided written documentation about these state machines, so printouts are all Vervain has.

Micron has suggested that, instead of giving Vervain the requested printouts, Vervain should simply keep going to California as it needs more code for expert reports. As an initial matter, this is not what the agreed-upon Protective Order requires. Furthermore, Micron has not

been able to timely produce the code when Vervain has requested it. During Vervain's most recent review, Vervain had requested to review the code beginning Monday, March 14. After Vervain's counsel had already traveled to California, Micron said the code was not available and did not make the code available until Wednesday, March 16. At Vervain's prior review, too, Micron emailed Vervain's counsel when they were already on the flight to California notifying them of technical difficulties and delays. This makes access to printouts even more critical.

Plaintiff's Requested Relief:

The Court should order that Micron must produce the source code printouts identified by Vervain the week of March 14 in their entirety.

Defendants' Position:

Micron respectfully requests that the Court limit Vervain to 100 pages of source code printouts per product.

The Protective Order distinguishes between a proper and an improper source code printout request. Vervain "may request limited portions of the Source Code only when necessary to prepare court filings or pleadings or other papers." Protective Order ¶ 11(c)(v). Requesting printouts "for the purposes of review and analysis elsewhere," however, is improper. *Id.* "The burden shall be on the receiving Party to demonstrate that such printed portions are no more than is reasonably necessary for a permitted purpose." *Id.*

Vervain has not met its burden. For one product, Vervain seeks printouts of 345 pages of source code. Vervain does not even attempt to explain for what court filing, etc., it would need such a massive volume of source code—much less why it would need 345 pages. The idea that Vervain would cite 345 pages of code or ask a witness about 345 pages of code is beyond the pale. Vervain just wants to "review" this code at its convenience.

Vervain's assertion that the four patents at issue would justify such an extraordinary amount of source code printouts is meritless. All patents stem from the same application, the claims do not differ significantly, and the claims collectively center around the hot block and data integrity limitations. Dkt. 32 at 6-7.

Vervain's assertion that some of the files are long and "span dozens of files" does not distinguish this case from others. Protective Orders serve to protect sensitive information. Currently, the DOJ is in trial prosecuting a company for stealing Micron's confidential information. For these real-world threats, Micron welcomes Vervain to continue its inspection to review code that allegedly "span dozens of files," but it must only print what it actually needs to prepare court filings.

Vervain's other gripes are similarly without merit. Both parties are currently supplementing their productions and discovery responses. Micron made its source code available in Orrick's office to avoid requiring Vervain to travel to Boise. Vervain can inspect the code in Boise to avoid technical issues.

Finally, Vervain will not say that it will not seek another large printout of source code. In other words, it appears very likely that Vervain will later request a do-over. For this reason, Micron requests that the Court set a limit of 100 total source code pages to avoid future disputes.

Defendants' Requested Relief:

The Court should order that Vervain is limited to no more than 100 pages of printed source code for each product.

SECOND ISSUE

Plaintiff's Position:

Vervain's Infringement Contentions are not limited to solid-state drives, but from the start have accused:

- “all other SSDs, memory cards, managed NAND, eMMC, Embedded USB, Universal Flash Storage, or other flash memory products that have the same or similar structures, features, or functionalities,”
- “all flash memory products capable of storing data in single-level cells (SLCs) (i.e., any cell with two states, or storing 1 bit) and multi-level cells (MLCs) (i.e., any cell with more than two states, or storing more than 1 bit) that are capable of dynamic write acceleration or similar operations, features, or functionalities.”
- “[a]ll flash memory products that are capable of writing from MLCs to SLCs during wear leveling, defect and error management, COPYBACK operations, and/or similar operations, features, or functionalities.”

Vervain August 6, 2021 Infringement Contentions at 3-4.

Vervain's review of the source code for all SSDs that have SLC and MLC has confirmed that Micron's SSDs (1) move data from MLC to SLC after the failure of a data integrity test, and (2) move data from MLC with a high erase count (i.e., “hot blocks”) to SLC. Similarly, Vervain has confirmed that the SSDs compare data stored in MLC with data retained in RAM, and move data to SLC or MLC blocks with a low erase count. For example, Micron's SSDs check for host LBA mismatch and move data in the case of errors.

Based on the review of the source code produced to date, Vervain has a good faith basis that Micron's other flash memory products operate in the same or a similar manner.

The need for the endurance-enhancing features of Vervain's inventions is not limited to SSDs. Customers expect memory cards, USB drives, and other managed flash products to reliably store their data and last a long time. Vervain expects that these other products would similarly move data (for example, to SLC blocks or blocks with a low erase count) to enhance endurance just as Micron's SSD products do. There is no reason Micron would not have applied the technology it uses in its SSDs to other flash products as well.

To be clear, Vervain is only accusing flash memory products that have both SLC and MLC, and a controller that moves data between MLC and SLC. Based on Vervain's review of publicly available documents, it appears that all of the products in Vervain's Final Infringement Contentions have SLC, MLC, and such a controller. Vervain has a right to accuse these products, and Micron has an obligations to produce documents and source code showing these products' operation.

Plaintiff's Requested Relief:

The Court should order that Micron must not limit its discovery production to SSDs and find that Vervain's Accused Products are not limited to SSDs.

Defendants' Position:

Vervain's Infringement Contentions chart only a single SSD product and do not make any showing that non-SSD products are similar. *E.g.*, Final Invalidity Contentions ("FICs"), Exhibit 1. Now, Vervain is attempting to leverage the single SSD chart to seek discovery on non-SSD products. This single SSD chart does not entitle Vervain to discovery on non-SSD products.

Micron is already providing more discovery than Vervain's infringement contentions warrant. Vervain's contentions, like its Complaints, fail to provide any plausible claim of

infringement against any product. Dkt 32 (dismissing original complaint); Dkt 48 (motion to dismiss amended Complaint). Regardless, because Vervain’s contentions chart one SSD product, Micron is providing discovery into all of its SSD products (approximately 25 products).

Already on a fishing expedition, Vervain seeks to widen its net to “all flash memory products that use SLC (including MLC/TLC/QLC in SLC Mode) and MLC (including MLC/TLC/QLC).” FICs at 5. This, on its face, does not pass muster. Vervain already told this Court that SLC and MLC (two types of memory) are old hat, and its patents cover specific improvements in this context. Dkt 29 at 2-4. Thus, to open the gates of discovery beyond SSD products, Vervain must either separately chart each accused product to identify these alleged improvements or provide meaningful analysis to show that the SSD product is representative of the non-SSD products. *WSOU Investments LLC v. OnePlus Technology (Shenzhen) Co.*, 2022 WL 174517, at *2–3 (W.D. Tex. Jan. 18, 2022) (“WSOU must provide sufficient notice to OnePlus for each of the accused products, either with individual charts or with detailed descriptions of how each product is represented by the single charted product.”). Vervain has done neither. Instead, Vervain simply identifies numerous unrelated flash products without any description of how these products are represented by the single charted SSD product.

Notably, the uncharted non-SSD products are materially different from the single SSD that Vervain charted. Many of the uncharted products do not even include both MLC and SLC. *E.g.*, https://www.micron.com/-/media/client/global/documents/products/data-sheet/eusb/eusb_mtf_230_embedded.pdf, 3 (“only SLC NAND Flash”). Many of the uncharted products are tailored to specific applications, *e.g.*, “automotive-grade reliability.” <https://www.micron.com/products/managed-nand/universal-flash-storage>. “Because there are a variety of implementation techniques, [plaintiff] must either demonstrate (1) that the difference

in the implementation techniques does not affect its infringement theories, or (2) every Accused Product uses the same implementation technique.” *Secure Access LLC v. HP Enter. Servs., LLC*, 2016 U.S. Dist. LEXIS 136441, at *20 (E.D. Tex. Sept. 20, 2016). Vervain has not.

Finally, while Vervain pretends that it is seeking products with certain features (“dynamic write acceleration” and “COPYBACK”) or “equivalent” features, this argument fares no better for at least three reasons. First, Vervain’s definition of “accused products” is not limited to products with these features. FICs at 5. Second, Vervain does not even allege that one of these features itself infringes—rather, Vervain cobbles together many different features of an SSD to allege infringement. E.g., FICs, Ex. 1. Thus, even if this did identify products in a meaningful way, it does not identify allegedly infringing products. Third, a “general request for discovery on all equivalent ... products is overly broad, unduly burdensome for [Defendant], and impossible for the Court to police.” *Roy-G-Biv Corp. v. ABB, Ltd.*, 2014 U.S. Dist. LEXIS 192675, at *3 (E.D. Tex. Feb. 25, 2014).

At bottom, Vervain could have charted non-SSD products, like it did for the SSD product in its Complaint and FICs. It did not, because it cannot articulate an infringement theory for non-SSD products.

Defendants’ Requested Relief:

The Court should deny Plaintiff’s request.

RESOLUTION

Regarding the first issue, the Court finds that Plaintiff is entitled to all requested source code printouts. Plaintiff must store the requested source code printouts in an appropriate gun safe that is not easily movable for security purposes.

Regarding the second issue, the Court directs the parties to the guidance in *IGT v. Zynga Inc.*, No. W-21-CV-00331-ADA, 2022 U.S. Dist. LEXIS 35393 (W.D. Tex. Mar. 1, 2022). Unlike the plaintiff there, Vervain has not illustrated in its contentions that “the additional uncharted products are ‘reasonably similar’ to those specifically charted and accused in the preliminary infringement contentions.” *Id.* at *6. Vervain cannot simply list products in its contentions that it believes are reasonably similar. It must illustrate why they are.

The Court ORDERS:

- 1) Defendants shall produce all requested source code printouts promptly but not later than April 21, 2022, to Plaintiff, and Plaintiff shall store all produced source code printouts in an appropriate gun safe that is not easily movable.
- 2) Plaintiff shall follow the Court’s guidance regarding infringement contentions in *IGT v. Zynga Inc.*, No. W-21-CV-00331-ADA, 2022 U.S. Dist. LEXIS 35393 (W.D. Tex. Mar. 1, 2022), and Plaintiff will supplement its final infringement contentions by April 25, 2022. If needed after this supplementation, the parties will return to the Court.

SIGNED this 20th day of April, 2022.


ALAN D ALBRIGHT
UNITED STATES DISTRICT JUDGE